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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/649,308	08/27/2003	Kazuhito Sacki	3083-002	5393

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KILYK & BOWERSOX, P.L.L.C.
400 HOLIDAY COURT
SUITE 102
WARRENTON, VA 20186

EXAMINER

CARTER, AARON W

ART UNIT	PAPER NUMBER
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2624

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.		Applicant(s)	
	10/649,308		SAEKI, KAZUHIITO	
	Examiner		Art Unit	
	Aaron W. Carter		2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 August 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>9/17/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2 recites the limitation "the shots determined beforehand" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim 3 recites the limitation "the respective shots determined beforehand" in lines 3-4. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7 and 9-11 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,175,652 to Jacobson et al. ("Jacobson").

As to claim 1, Jacobson discloses an image processing device for inspection by image processing of image data acquired from a camera which captures images of at least one object, comprising:

Shot number setting means for setting the number of shots of photographing of the object with the camera (Fig. 4, element 44 and column 8, lines 19-30);

Preliminary inspection means for sequentially inspecting the image data acquired from the camera by image processing each time when the camera captures an image of the object until the number of shots reaches the value set by the shot number setting means (Fig. 4-2, elements 48-58 and column 9, lines 27-38, column 10, lines 27-42 and column 11, line 59 – column 12, line 9, wherein the process of physical feature location correlation corresponds to the sequential inspection by the image processing);

Collective estimation means for collectively estimating the object on the basis of results of inspection of the image data of the individual images after inspection of image data of the image captured by final one of the shots determined by the shot number setting means (column 13, lines 41-46, wherein further processing such as feature analysis for conditions of interest using the complete orthogonal view corresponds to collectively estimating the object, for example Fig. 7, elements 134-150 may correspond to the feature analysis); and

Output means for outputting a result of collective estimation by the collective estimation means (column 15, lines 29-32, Fig. 7, elements 142 and 152 and column 18, lines 65-67).

As to claim 2, Jacobson discloses the image processing means according to claim 1, wherein the preliminary inspection means carries out identical inspection upon any of the shots determined beforehand (Fig. 4-2, elements 48-58, wherein elements 50-56 are repeated for each image acquired).

As to claim 3, Jacobson discloses the image processing means according to claim 1 wherein the preliminary inspection means carries out different kinds of inspection inspects for the respective shots determined beforehand (Fig. 4-2, elements 48-58, wherein the number of object images to be acquired (M) maybe be different for respective shots determined beforehand).

As to claim 4, Jacobson discloses the image processing means according to claim 1, further comprising an inspection item setting means for setting at least one inspection item in association with individual said shots for the inspection by the preliminary inspection means (Fig. 4-1, element 46).

As to claim 5, Jacobson discloses the image processing means according to claim 1, further comprising a data erasure means for erasing the image data acquired from the camera, results of inspection by the preliminary inspection means and the results of collective estimation after the output means outputs the results of the collective estimation of the object (Fig. 5,

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element 65 and 75, Fig. 6 and column 16, lines 51-67, wherein directing the image data to the output corresponds to data erasure).

As to claim 6, please refer to the rejection of claim 1 above.

As to claim 7, please refer to the rejection of claim 5 above.

As to claim 9, Jacobson discloses the image processing method according to claim 7, wherein the images are captured by the camera from different portions of a single object (column 2, lines 19-36, wherein multiple images of the object from different perspective views), and the different portions of the single object are inspected in a plurality of events of the preliminary inspection step, respectively (Fig. 4-2, elements 48-58, wherein elements 52-56 correspond to a plurality of events of the preliminary inspection step).

As to claim 10, Jacobson discloses the image processing method according to claim 7, wherein the object is an elongate single object having first and second ends, and the first and second ends of the object are inspected in respective occurrences of the preliminary inspection step (Fig. 5 and column 15, lines 33-54, wherein the ingot corresponds to the elongated single object having first and second ends, which are inspected using the process of Fig. 4 which captures images of the ingot multiple times corresponding to respective occurrences).

As to claim 11, Jacobson discloses the image processing method according to claim 10, wherein the collective inspection step executes inspection of an error of the lengthwise size of

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the elongate object based upon the inspection of the first and second ends thereof in the preliminary inspection step (Fig 7 and column 18, lines 31-67).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jacobson (already of record).

As to claim 8, Jacobson discloses the image processing method according to claim 7, wherein the images are captured by the camera from an object and all of the images are inspected by an identical item of inspection in any event of the preliminary inspection step (Fig. 4-2, elements 48-58, wherein elements 50-56 are repeated for each image acquired and for each new object to be inspected the process of Fig. 4 altogether will be repeated).

However, Jacobson does not disclose expressly wherein the images are captured by the camera from a plurality of identical objects contained in a single box.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to have acquired each object of box and subjected it to the inspection process. Applicant

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has not disclosed that the fact that the objects are identical objects contained in a box provides an advantage, is used for a particular purpose or solves a stated problem.

Therefore, it would have been obvious to combine to one of ordinary skill in this art to modify the image processing process disclosed by Jacobson with capturing images by a camera from a plurality of identical objects contained in a single box to obtain the invention as specified in claim 8.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,991,041 to Woodworth discloses an inspection process.

USPN 6,160,910 to Freifeld discloses an inspection process.

USPN 6,493,079 to Piacentini discloses an inspection process.

USPN 7,084,900 to Watanabe et al. discloses an inspection process.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is (571) 272-7445.

The examiner can normally be reached on 8am - 4:30 am (Mon. - Fri.).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on (571) 272-7453. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Aaron Carter
AU 2624